

Abstract #2

Kuang's Semi-Classical Formalism for Electron Capture Cross-Sections in Ion-Ion Collisions at few MeV's/nucleon: Application to ENA Modeling

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Accurate estimates of electron-capture cross sections at energies relevant to ENA modeling (~ few MeV per nucleon) and for multi-electron ions must rely on first-principles approaches and/or detailed quantum-mechanical simulation of the collision process. Kuang's semi-classical approach offers a middle-ground, elegant and efficient way to arrive at these estimates. We shall present a sample application and current progress in applying and extending Kuang's formalism to ENA modeling.